

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 03/03896

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 E21B43/08 E21B43/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 E21B E03B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 419 606 A (O.H. JEWELL) 14 January 1890 (1890-01-14) claim 1 figures 1,2	1,2
Y	-----	3
Y	US 5 979 551 A (UBAN STEPHEN A ET AL) 9 November 1999 (1999-11-09) column 4, line 2-16 figures 1,5	3
X	US 2 280 054 A (BECK JULIUS S) 21 April 1942 (1942-04-21) column 2, line 49 -column 3, line 2 figures 1,2 ----- -/-	1,15-17

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

\*S\* document member of the same patent family

Date of the actual completion of the international search

17 December 2003

Date of mailing of the international search report

13/01/2004

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3 638 726 A (SIBLEY DAVID L.) 1 February 1972 (1972-02-01) the whole document ----	1, 15
A	US 2 681 111 A (THOMPSON CLAUDE C) 15 June 1954 (1954-06-15) the whole document ----	1, 15
A	US 4 691 778 A (PYNE R DAVID G) 8 September 1987 (1987-09-08) column 2, line 51-55 figures 2,3 ----	1, 15
A	US 3 993 130 A (PAPP JOHN C) 23 November 1976 (1976-11-23) claim 1 figure 1 -----	1, 15

# INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
5 US 419606	A	NONE	
7 US 5979551	A	09-11-1999	NONE
1 US 2280054	A	21-04-1942	NONE
3 US 3638726	A	01-02-1972	NONE
2 US 2681111	A	15-06-1954	NONE
6 US 4691778	A	08-09-1987	NONE
4 US 3993130	A	23-11-1976	NONE

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P31080AMGO/JDB	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/GB 03/03896	International filing date (day/month/year) 08.09.2003	Priority date (day/month/year) 07.09.2002
International Patent Classification (IPC) or both national classification and IPC E21B43/08		
Applicant ROBERT GORDON UNIVERSITY		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand  11.03.2004	Date of completion of this report  09.08.2004	
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer  Schouten, A  Telephone No. +31 70 340-4088 	

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/GB 03/03896

**i. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-14 as originally filed

**Claims, Numbers**

1-23 as originally filed

**Drawings, Sheets**

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**International application No. **PCT/GB 03/03896**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	3-14,18-23
	No: Claims	1,2,15-17
Inventive step (IS)	Yes: Claims	4-14,18-23
	No: Claims	1-3,15-17
Industrial applicability (IA)	Yes: Claims	1-23
	No: Claims	

2. Citations and explanations

**see separate sheet**

**INTERNATIONAL PRELIMINARY**

International application No. PCT/GB 03/03896

**EXAMINATION REPORT - SEPARATE SHEET**

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**Re Item V****Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1) In light of the documents cited in the international search report, it is considered that the invention as claimed in at least one of the independent claims does not appear to meet the criteria mentioned in Article 33 (1) PCT, i.e. does not appear to be novel.

Dependent claims can only meet the PCT requirements when related to independent claims complying with Article 33 (1) PCT.

2) The document US-A-419.606 discloses in claim 1 and in Figs. 1 and 2:

a screen system for underground wells, the screen system comprising a screen wherein the screen comprises a plurality of slots; and a mechanism capable of varying the size of the slots.

The subject-matter of independent apparatus claim 1 is therefore not new (Article 33(2) PCT).

Please note that the screen system as described in US-A-419.606 is considered to be suitable for use in an underground well. Furthermore it is noted that also US-A-2.280.054 discloses the subject-matter of independent claim 1.

3) The document US-A-2.280.054 discloses in column 2, line 49 - column 3, line 2 and in Figs. 1 and 2:

A method of fluid control in a well, the method comprising the steps of placing a screen having a plurality of slots in the well and varying the size of the slots.

The subject-matter of independent method claim 15 is therefore not new (Article 33(2) PCT).